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R-023-207 .6

**APPROVAL OF THE REMOVAL ACTION NO. 20 URANYL NITRATE
NEUTRALIZATION PROJECT WORK PLAN**

08/09/94

USEPA DOE-FN
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COMMENTS



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

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Mr. Jack R. Craig
United States Department of Energy
Feed Materials Production Center
P.O. Box 398705
Cincinnati, Ohio 45239-8705

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REPLY TO THE ATTENTION OF:

HRE-8J

R-023-207.6

RE: Approval of the Removal Action
No. 20 Uranyl Nitrate
Neutralization Project Work
Plan

Dear Mr. Craig:

The United States Environmental Protection Agency (U.S. EPA) has completed its review of the Removal Action Work Plan for the Uranyl Nitrate Hexahydrate (UNH) Neutralization Project, Removal Action Number 20. The document adequately describes the proposed methodology for neutralizing 200,000 gallons of uranyl nitrate (UNH). However, U.S. EPA has three comments, which are presented below.

First, in its discussion of the neutralization process (Section 2.1.3 and 2.1.4, page 7), the U.S. Department of Energy (DOE) should specify names, structures, and oxidation states for each of the neutralization reactants and products.

Second, in Section 2.1.4, page 7, DOE states that the filtrate must meet certain uranium concentration criteria before discharge to the biodenitrification facility. However, DOE does not include the specific uranium concentration. The uranium concentration criteria for discharge to the biodenitrification facility should be included in the text.

Third, in Section 5.5, page 16, DOE states that neutralizing 20,000 gallons of UNH generated 501 55-gallon drums of filter cake. The work plan proposes treating 200,000 gallons of UNH in 30 to 50 batches. Neutralizing 200,000 gallons of UNH should generate a total of approximately 5,000 55-gallon drums of filter cake, which would equal from 100 to 167 drums per batch. Although the filter cake is assumed to be homogeneous, DOE's proposal to collect only two samples per batch is not adequate to characterize the filter cake. U.S. EPA believes that DOE should collect a sample from every twentieth drum to adequately characterize the filter cake.

U.S. EPA hereby approves the Work Plan pending incorporation of appropriate responses to these comments.

Please contact me at (312) 886-0992 if you have any questions.

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action response
to doe-1964-94
(8088)

Sincerely,

Eugene A. Jablonowski for

James A. Saric, Remedial Project Manager
Technical Enforcement Section #1
RCRA Enforcement Branch

cc: Tom Schneider, OEPA-SWDO
Pat Whitfield, U.S. DOE-HDQ
Don Ofte, FERMCO
Jim Thiesing, FERMCO
Paul Clay, FERMCO